11-175

## NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED:

October 14, 1981

Forwarded to:

Mr. Samuel B. Nemirow Assistant Secretary for Maritime Affairs Maritime Administration U.S. Department of Commerce Washington, D.C. 20230

SAFETY RECOMMENDATION(S)

M-81-86

From 1970 through 1979, there were 34,022 commercial vessel accidents in U.S. navigable waters. The average number of accidents increased 7 percent annually during the period, from 2,582 accidents in 1970 to 4,665 accidents in 1979. About 40 percent of the accidents in U.S. waters are collision accidents. The number of collisions increased from 1,093 in 1970 to 1,621 in 1979. Based on the mean yearly percentage change, collisions increased 5 percent per year over the 10-year period. The national collision data show that the U.S. Coast Guard's determination of primary cause in its collision investigations from 1970 through 1979 indicated that 66.5 percent of collisions were caused by human error and that 7.4 percent were caused by equipment failure.

The National Transportation Safety Board has been involved in the investigation of 82 marine accidents from 1970 through 1980. Of these, 33 (40 percent) were collision accidents. The leading causes of collisions investigated by the Safety Board were improper navigation (73 percent) and equipment failure (18 percent). The Safety Board believes that reducing the percentage of ship collisions caused by human error should be the major concern in the formulation of an effective collision prevention program. In the interest of improving maritime safety, the U.S. Maritime Administration, the Coast Guard, and maritime organizations abroad have been expanding shiphandling simulator research and training programs. The results of these programs have been encouraging in terms of the training potential for deck officers and pilots. However, the Safety Board believes that shiphandling simulators should be used in conjunction with at-sea experience to help to identify the general shiphandling procedures to be followed when ships experience vital control system failures. Therefore, the National Transportation Safety Board recommends that the U.S. Maritime Administration:

In cooperation with the U.S. Coast Guard, develop a model simulator training program to reduce ship collisions caused by vital control system failure, which could be incorporated into licensing and certification programs. (Class II, Priority Action) (M-81-86)

KING, Chairman, and GOLDMAN and BURSLEY, Members, concurred in this recommendation. DRIVER, Vice Chairman, and McADAMS, Member, did not participate.

By: James B King Chairman MSS-81-1

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